



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY
AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION
NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/pera/

Marvin Windows and Doors
Highway 11 West
P. O. Box 100
Warroad, MN 56763-0100

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "Stormplus IZ4" 10 ft. Outswing Wood French Door – L.M.I.

APPROVAL DOCUMENT: Drawing No. 1452, "Clad 2¼-in. Outswing French Door Stormplus IZ4", sheets 1 through 7 of 7, prepared by W. W. Schaefer Engineering & Consulting, P. A., dated 09/30/2005 and latest revision "C1", dated 02/29/2012, signed and sealed by Warren W. Schaefer, P. E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and Expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant.

LIMITATIONS:

1. Only single fixed panel door is permitted with adhesive PL-400 (OSI) sealant without anchors.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/ series and following statement: "Miami-Dade County Product Control Approved" unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises** NOA No. 11-1019.07 and consists of this page 1, evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P. E.**



J. Gascon
5/14/12

NOA No. 12-0308.33
Expiration Date: January 05, 2016
Approval Date: May 24, 2012
Page 1

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under previous NOA's No's. 08-0917.09 and 05-1012.03)
2. Drawing No. **1452**, "Clad 2¼-in. Outswing French Door Stormplus IZ4", sheets 1 through 8 of 8, prepared by W. W. Schaefer Engineering & Consulting, P. A., dated 09/28/2005 and latest revision "**C1**", dated 02/29/2012, signed and sealed by Warren W. Schaefer, P. E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, Side-Hinged Door Systems, per FBC 2411 3.2.1, TAS 202-94 and per AAMA 1304-02
along with marked-up drawings and installation diagram of outswing wood doors, prepared by Architectural Testing, Inc., Test Report No. **ATI B3488.01-201-18**, dated 01/09/2012, signed and sealed by Shawn G. Collins, P. E.
2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, Side-Hinged Door Systems, per FBC 2411 3.2.1, TAS 202-94 and per AAMA 1304-02
along with the manufacturer's parts drawings, installation diagram and marked-up drawings of outswing wood doors, prepared by Stork Twin City Testing Corp., Test Report No. **STCT 113-96398.1**, dated 07/18/2008, signed and sealed by Thomas Kolden, P. E.
(Submitted under previous NOA No.08-0917.09)



Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12-0308.33
Expiration Date: January 05, 2016
Approval Date: May 17, 2012

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (CONTINUED)

3. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, Side-Hinged Door Systems, per FBC 2411
3.2.1, TAS 202-94 and per AAMA 1304-02

along with marked-up drawings and installation diagram of outswing wood doors, prepared by Architectural Testing, Inc., Test Report No. **ATI 58623.01-210-18**, dated 09/06/2005, signed and sealed by Joseph A. Reed, P. E.
(Submitted under previous NOA No.05-1012.02)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC, prepared by W. W. Schaefer Engineering & Consulting, P. A., dated 06/10/2010, signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 10-0621.03)
2. Glazing complies with ASTM E1300-98/ 04

D. QUALITY ASSURANCE


1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **11-0624.02** issued to E.I. DuPont DeNemours & Co., Inc. for their "**DuPont Sentry Glass® Interlayer**" dated 05/26/2010, expiring on 01/14/17.

F. STATEMENTS

1. Statement letter of conformance and compliance with the FBC-2010 and ANSI/AAMA/ NWWDA 101/ I.S. 2-97, dated 10/13/11, signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No.11-1019.07)
2. Statement letter of independence and no financial interest, dated 10/13/11, signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No.11-1019.07)


Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12-0308.33
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Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS (CONTINUED)

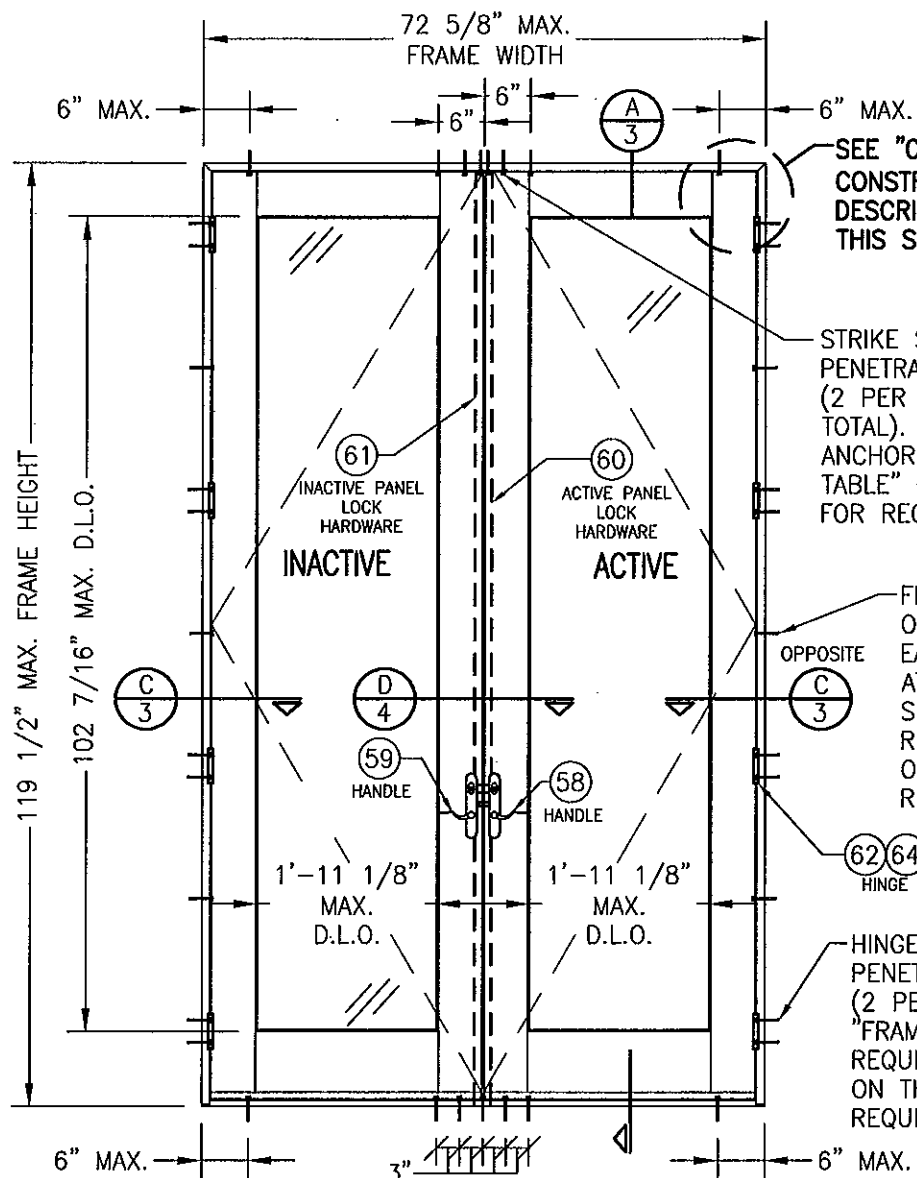
3. Laboratory addendum letter for Test Report No. **STCT 113-96398.1**, issued by Stork Twin City Testing Corp., dated 12/18/08, signed and sealed by Thomas Kolden, P. E. *(Submitted under previous NOA No.08-0917.09)*
4. Laboratory compliance letter for Test Report No. **STCT 113-96398.1**, issued by Stork Twin City Testing Corp., dated 07/18/08, signed and sealed by Thomas Kolden, P. E.
(Submitted under previous NOA No.08-0917.09)
5. Proposal issued by BCCO, dated 03/07/08, signed by Jaime D. Gascon, P. E.
(Submitted under previous NOA No.08-0917.09)
6. Laboratory compliance letter for Test Report No. **ATI 58623.01-210-18** issued by Architectural Testing, Inc., dated 09/06/05, signed and sealed by Joseph A. Reed, P. E.
(Submitted under previous NOA No.05-1012.03)
7. Proposal No. **04-0436** issued by BCCO, dated 10/12/04, signed by Manuel Perez, P. E.
(Submitted under previous NOA No.05-1012.03)

G. OTHERS

1. Notice of Acceptance No. **11-1019.07**, issued to Marvin Windows and Doors for their Series "Stormplus IZ4 10 ft. Aluminum Clad Outswing Wood French Doors – L.M.I.", approved on 11/24/2011 and expiring on 01/05/2016.



Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12-0308.33
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Approval Date: May 17, 2012



**EXTERIOR ELEVATION
DOUBLE RECTANGULAR OUTSWING DOOR**
SCALE: 1/2" = 1'-0"

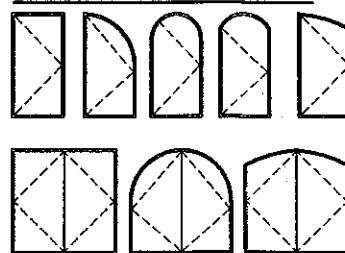
GENERAL NOTES:

1. THESE DOOR SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S).
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT DOORS.
5. THESE DOOR SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE DOORS.
7. ALL ANCHORS SECURING DOOR FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCE THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.
11. ALL WOOD MEMBERS OF DOORS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

CORNER CONSTRUCTION:

JAMB TO JAMB: SIDE MEMBER IS COPED, BUTTED TO HEAD MEMBER, JOINED WITH FOUR(4) NO. 7 X 2" SCREWS (3 THROUGH SIDE INTO HEAD & 1 THROUGH HEAD INTO SIDE).
JAMB TO SILL: SIDE MEMBER IS BUTTED TO SILL & JOINED WITH THREE(3) NO. 8 X 3" SCREWS THROUGH BASE OF SILL INTO JAMB AND ONE(1) NO. 8 X 1 1/2" SCREW THROUGH BACKSIDE OF SILL INTO JAMB (SEALED WITH JAMB GASKET).
TOP-RAIL TO STILE: TOP-RAIL IS BUTTED TO STILE & JOINED WITH TWO(2) 5/8" DIA. X 4" LONG WOOD DOWELS GLUED INTO EACH MEMBER WITH FRANKLIN INTERNATIONAL ADVANTAGE 310 ADHESIVE.
BOTTOM-RAIL TO STILE: BOTTOM-RAIL IS BUTTED TO STILE & JOINED WITH THREE(3) 5/8" DIA. X 4" LONG WOOD DOWELS GLUED INTO EACH MEMBER WITH FRANKLIN INTERNATIONAL ADVANTAGE 310 ADHESIVE.

APPROVED SHAPES



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION AS DESCRIBED ON THIS SHEET.
2. ALL SHAPED UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE RECTANGULAR UNITS & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE RECTANGULAR UNIT.

HINGE QUANTITY TABLE

DOOR HEIGHT	QTY REQUIRED
LESS THAN 86"	3
86" & GREATER	4

HINGE CENTERS ARE APPROXIMATELY 8" FROM BOTTOM & 10 1/2" FROM TOP OF DOOR PANEL AND EQUALLY SPACED BETWEEN.

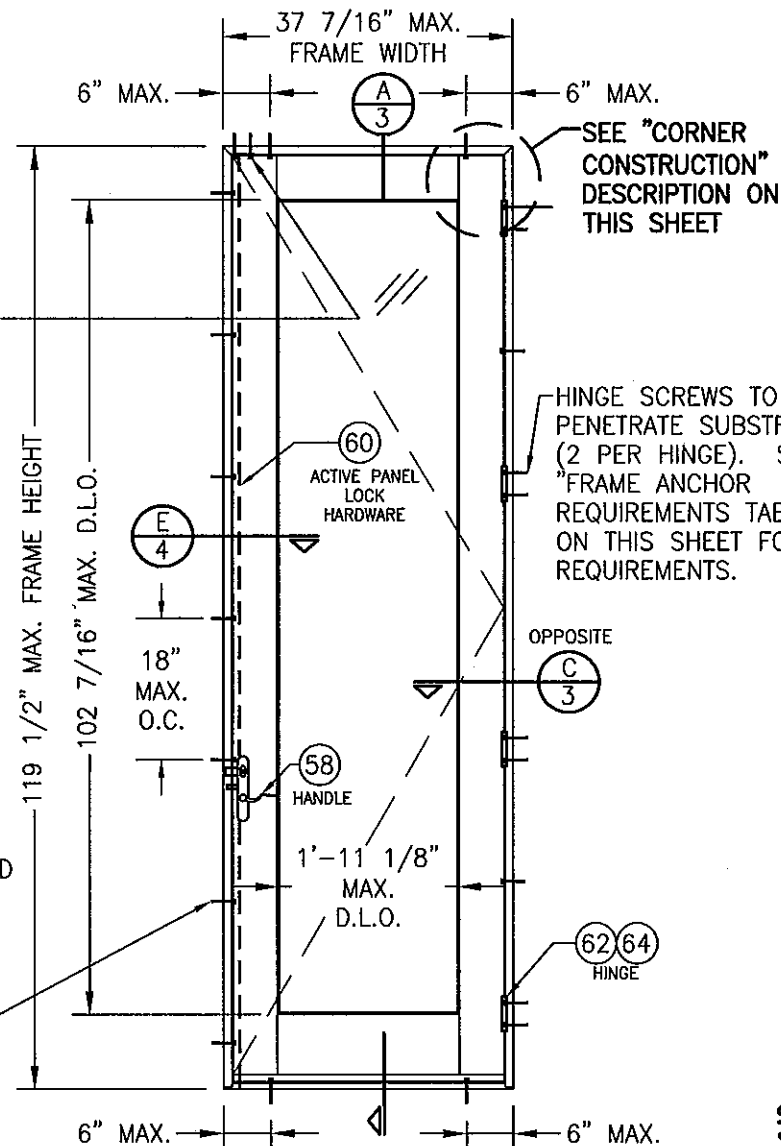
FRAME ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FRAME/CLIP/NAIL FIN TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME/SILL SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 10 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 1/8" THK A36 STEEL	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
MIN. 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/2"	2"
STRIKE SCREWS AT HEAD			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 10 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 1/8" THK A36 STEEL	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 2500 PSI CONCRETE	(1) 3/16" CONCRETE SCREW	1 1/2"	2"
HINGE SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 12 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 1/8" THK A36 STEEL	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CMU OR 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S. OR S.S.).

STRIKE SCREWS TO PENETRATE SUBSTRATE (2 PER PLATE). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR REQUIREMENTS.

FRAME/SILL SCREWS OR C-CLIP (BETWEEN EA. HINGE AT HINGE SIDE, 18" O.C. AT LOCK SIDE, 2 AT HEAD & 2 AT SILL) SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR REQUIREMENTS.



**EXTERIOR ELEVATION
SINGLE RECTANGULAR OUTSWING DOOR**
SCALE: 1/2" = 1'-0"

**ALLOWABLE DESIGN PRESSURE
(ALL DOORS)**

FRAME HEIGHT GREATER THAN 95.5"	+62/-68 PSF
FRAME HEIGHT 95.5" & LESS	+65/-80 PSF

CMU DOES NOT APPLY TO HEAD & SILL

PRODUCT REVISED

as complying with the Florida Building Code
 Acceptance No. 12-0308.33
 Expiration Date 01/05/2016
 By [Signature]
 Miami Dade Product Control

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

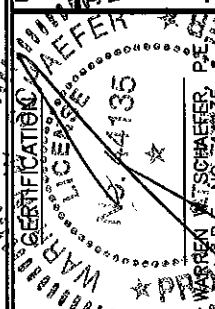
DRAWN BY:	W.R.M.	CHECKED BY:	W.W.S.
PLOT:	1=24	DATE:	09/30/05
DATE	09/08/08	DATE	09/08/08
BY	WRM	BY	WRM
REVISION DESCRIPTION	UPDATE TO PRESENT STANDARDS	REVISION DESCRIPTION	UPDATE TO PRESENT STANDARDS
NO.	A1	NO.	B1
			ADD ADJUSTABLE HINGE

DRAWING TITLE: WOOD 2 1/4" OUTSING FRENCH DOOR STORMPLUS IZ4

MANUFACTURER: MARVIN WINDOWS & DOORS
 HIGHWAY 11; P.O. BOX 100
 WARROAD, MN 56763
 800-346-5044

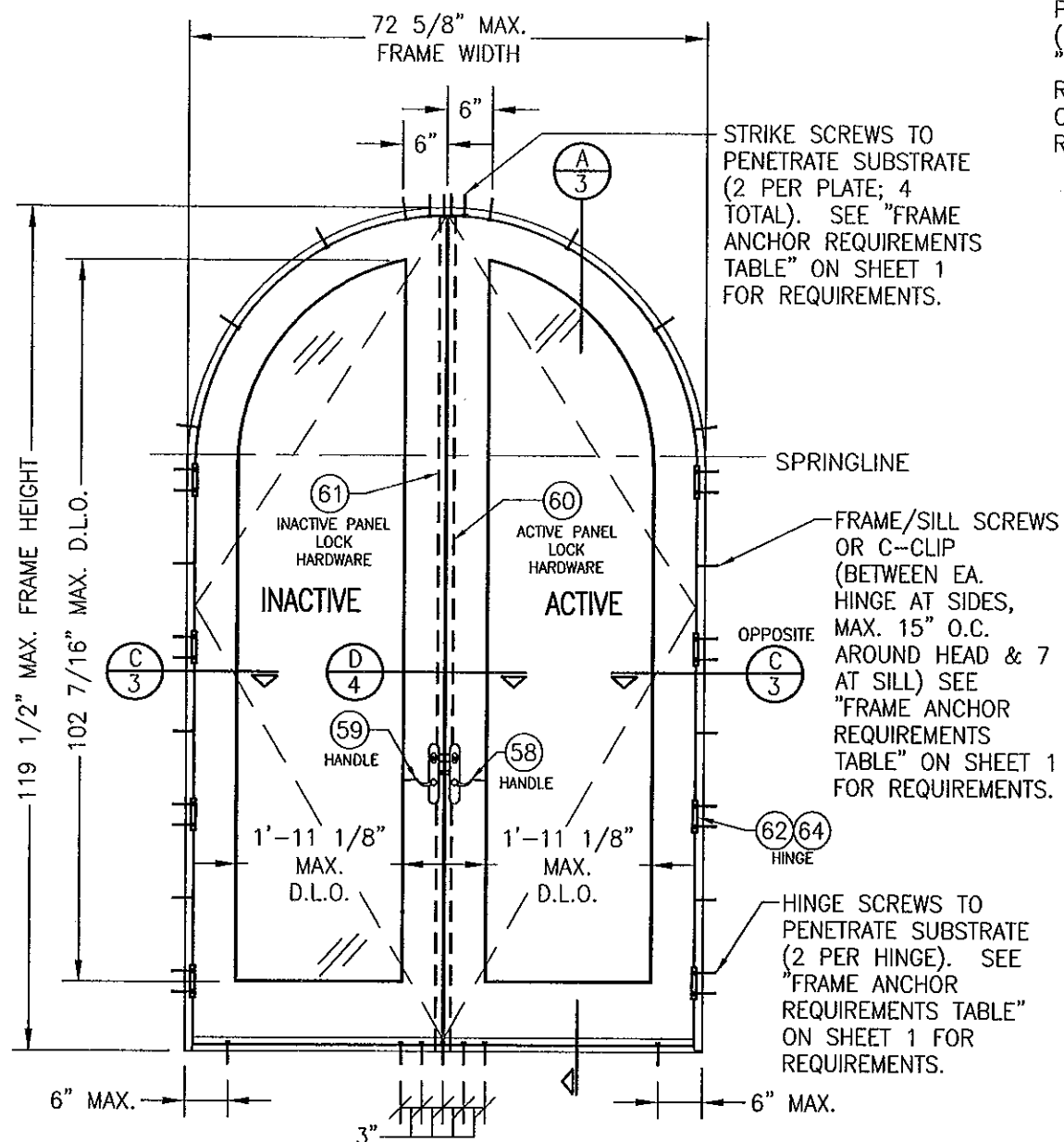
CONSULTANTS: W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 7480 150TH COURT NORTH
 PALM BEACH GARDENS, FL 33418
 PHONE: 561-744-3424

DRAWING TITLE

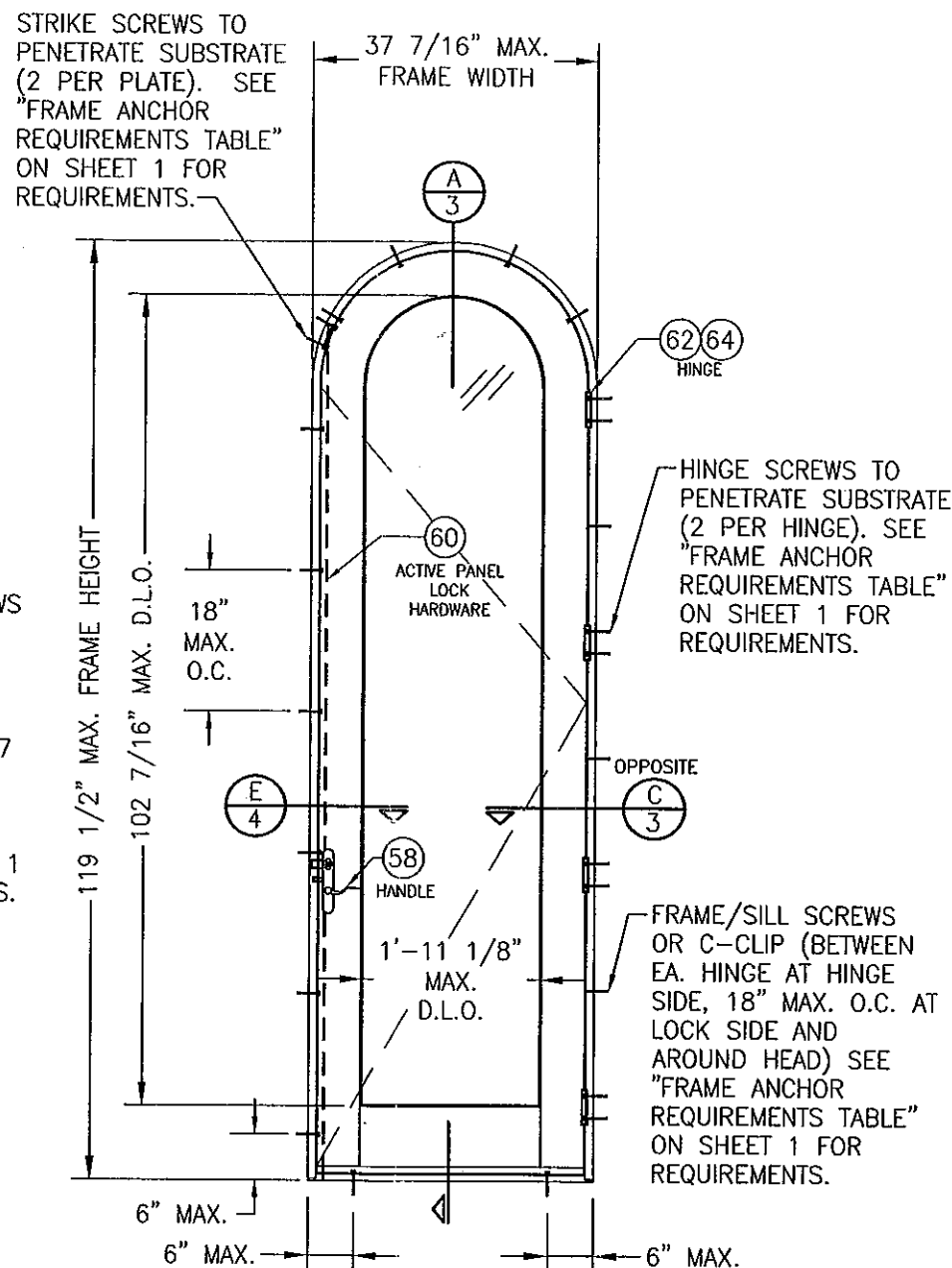


DRAWING NO.	1452	REV.	C
SHEET NO.	1	OF	7

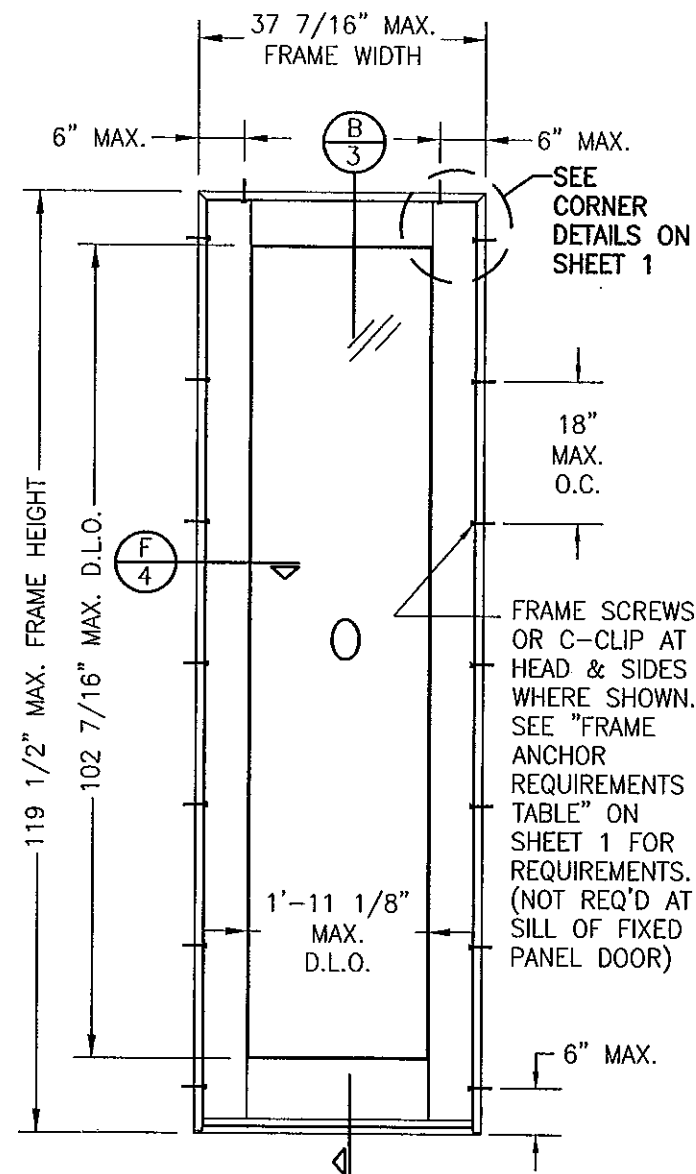
FEB 29 2012



**EXTERIOR ELEVATION
DOUBLE HALF-ROUND OUTSWING DOOR**
SCALE: 1/2" = 1'-0"

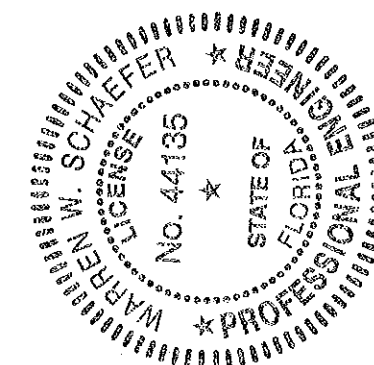



**EXTERIOR ELEVATION
SINGLE HALF-ROUND OUTSWING DOOR**
SCALE: 1/2" = 1'-0"

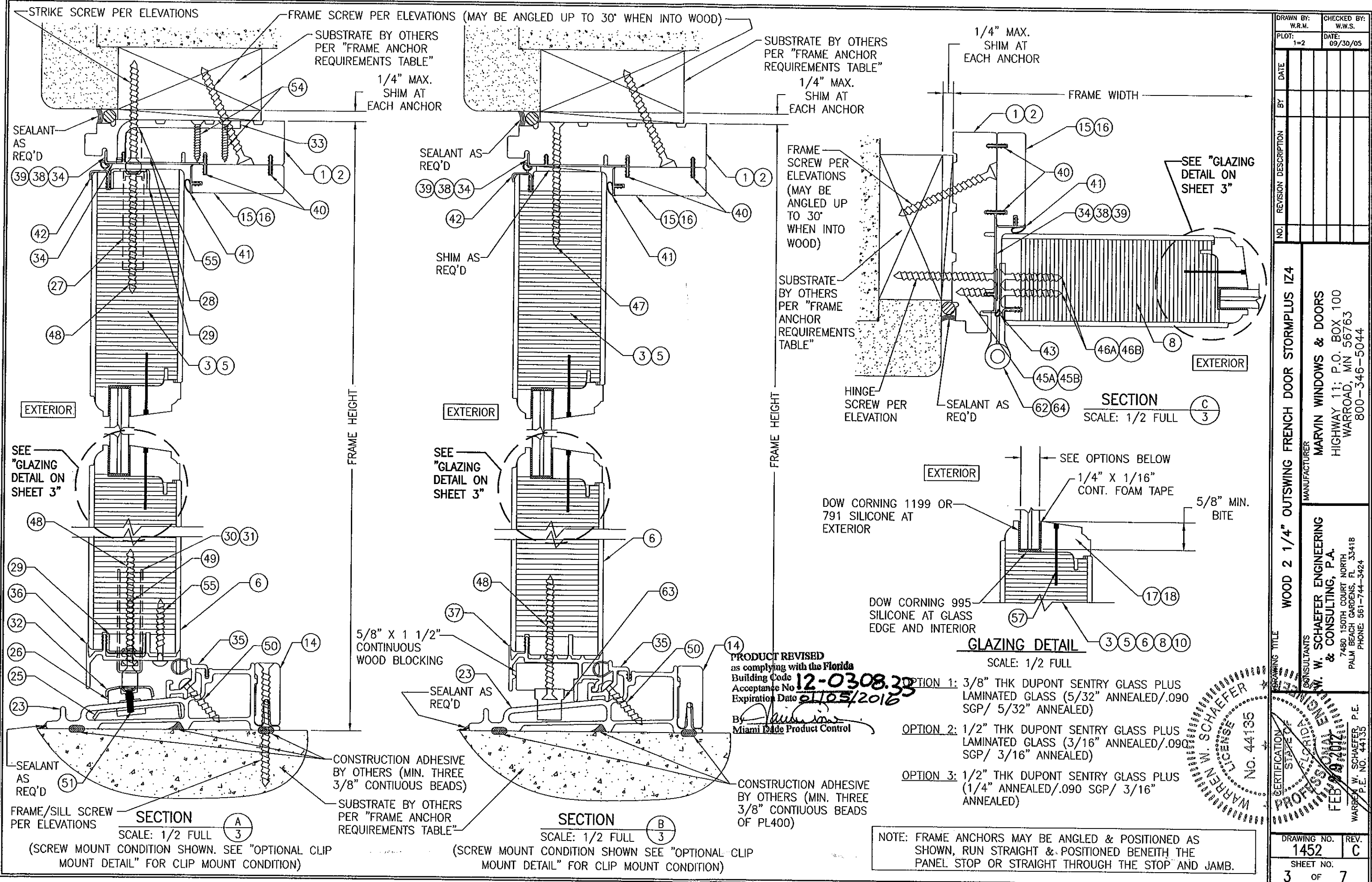


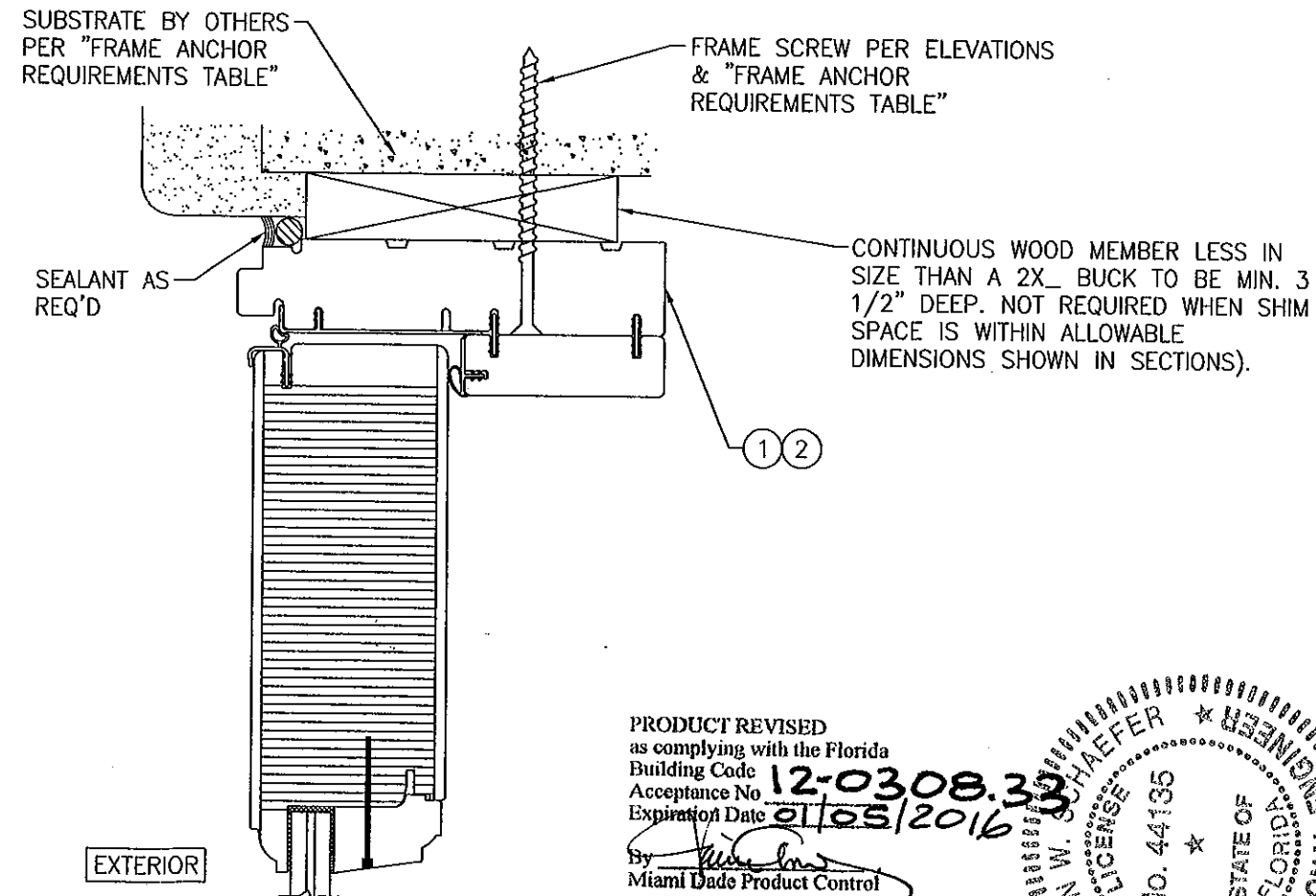
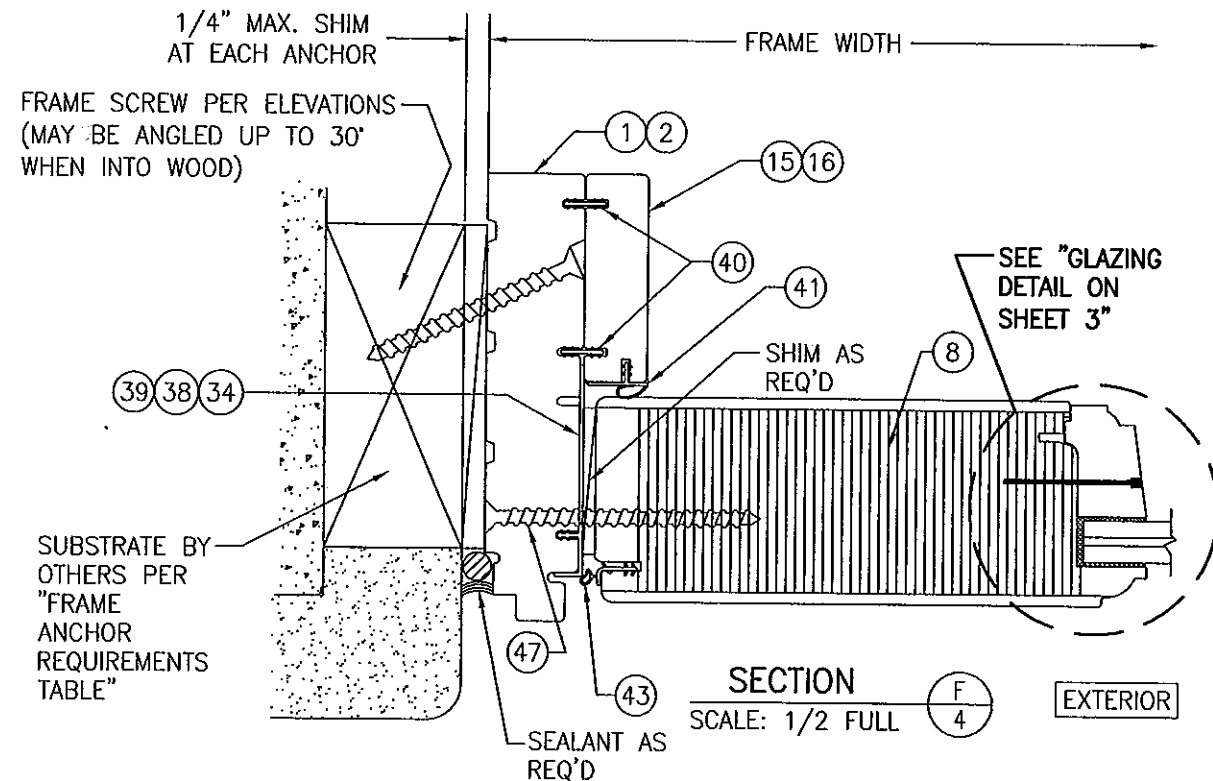
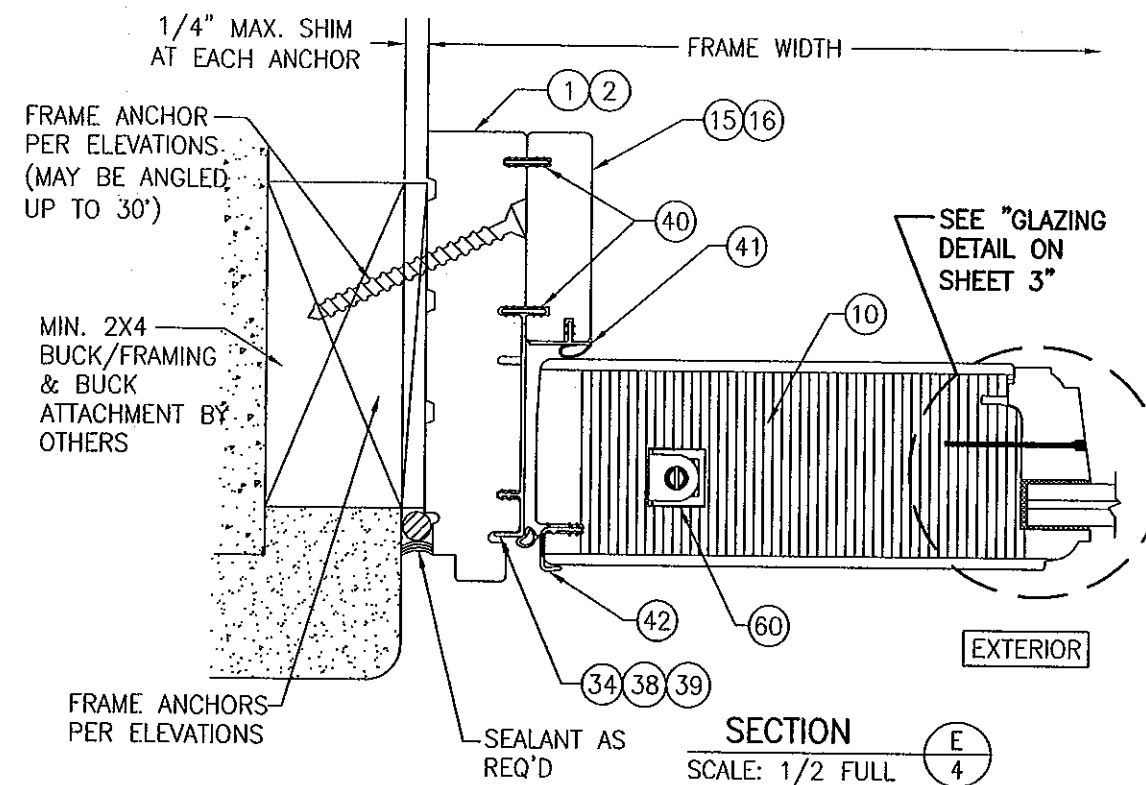
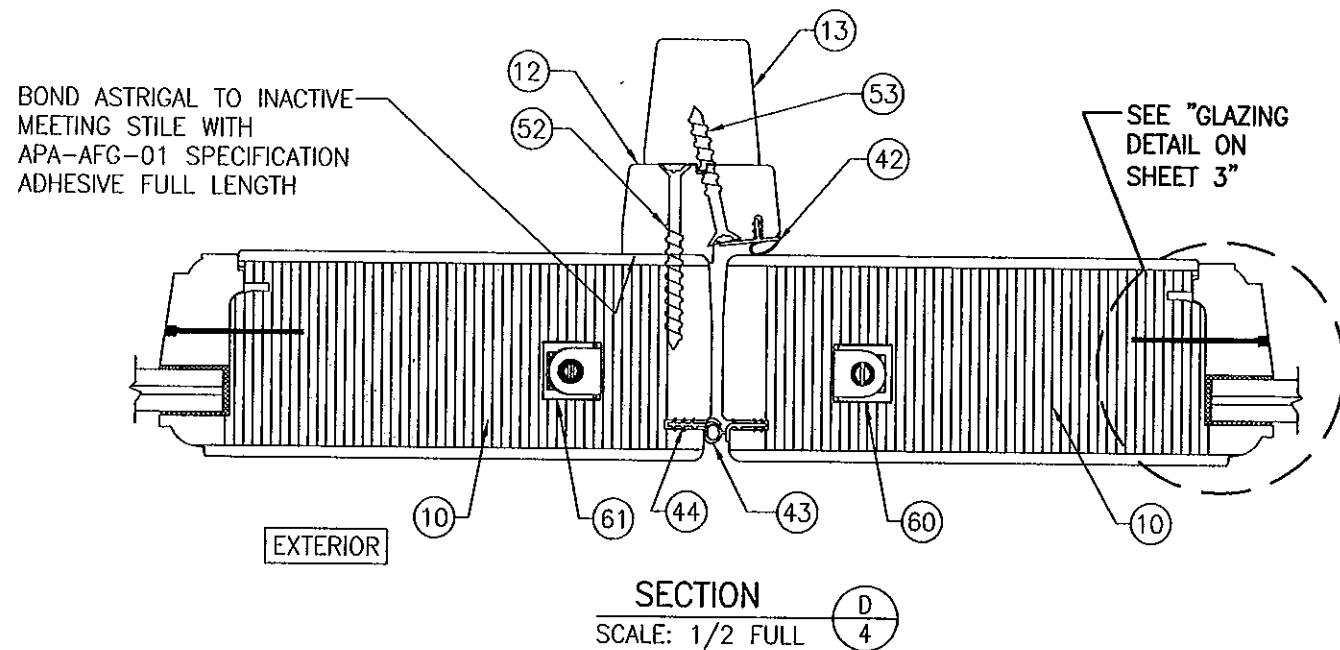
**EXTERIOR ELEVATION
SINGLE FIXED PANEL DOOR**
SCALE: 1/2" = 1'-0"
(RECTANGULAR DOOR SHOWN; SHAPES ALSO APPLY)

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. **12-0308.33**
Expiration Date **01/05/2016**
By *[Signature]*
Miami Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 09/30/05	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE WOOD 2 1/4" OUTSING FRENCH DOOR STORMPLUS IZ4			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION  FEB 29 2012 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1452		REV. C	
SHEET NO. 2 OF 7			

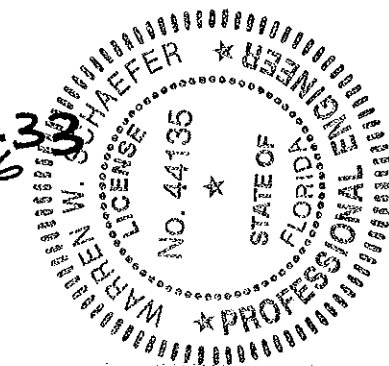




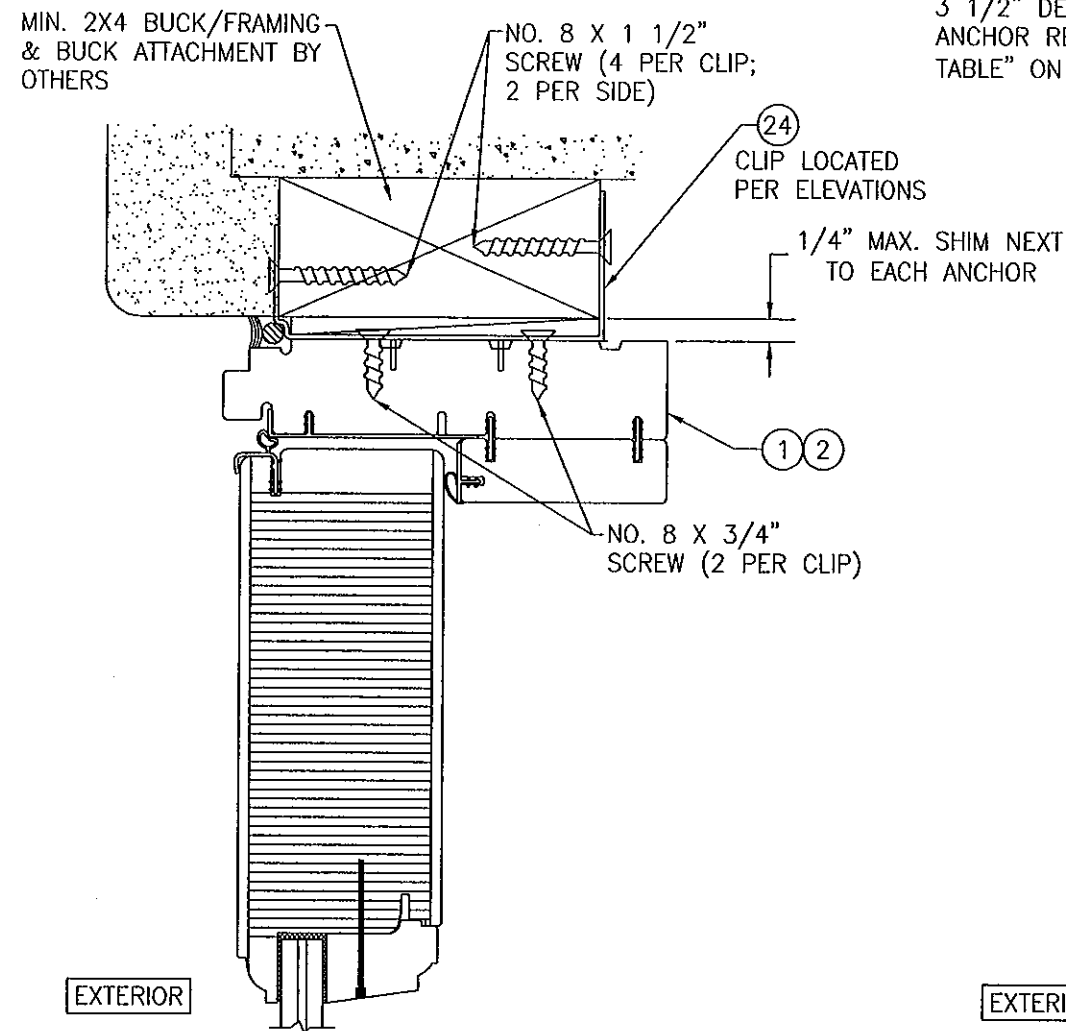
NOTE: FRAME ANCHORS MAY BE ANGLED & POSITIONED AS SHOWN, RUN STRAIGHT & POSITIONED BENEATH THE PANEL STOP OR STRAIGHT THROUGH THE STOP AND JAMB.

OPTIONAL DIRECT MOUNT DETAIL
TO BLOCK OR CONCRETE WITH SPACER OR SHIM
 (HEAD SECTION SHOWN, SIDES ARE INSTALLED THE SAME)
 (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

PRODUCT REVISED
 as complying with the Florida
 Building Code
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 Expiration Date 01/05/2016
 By *[Signature]*
 Miami Dade Product Control

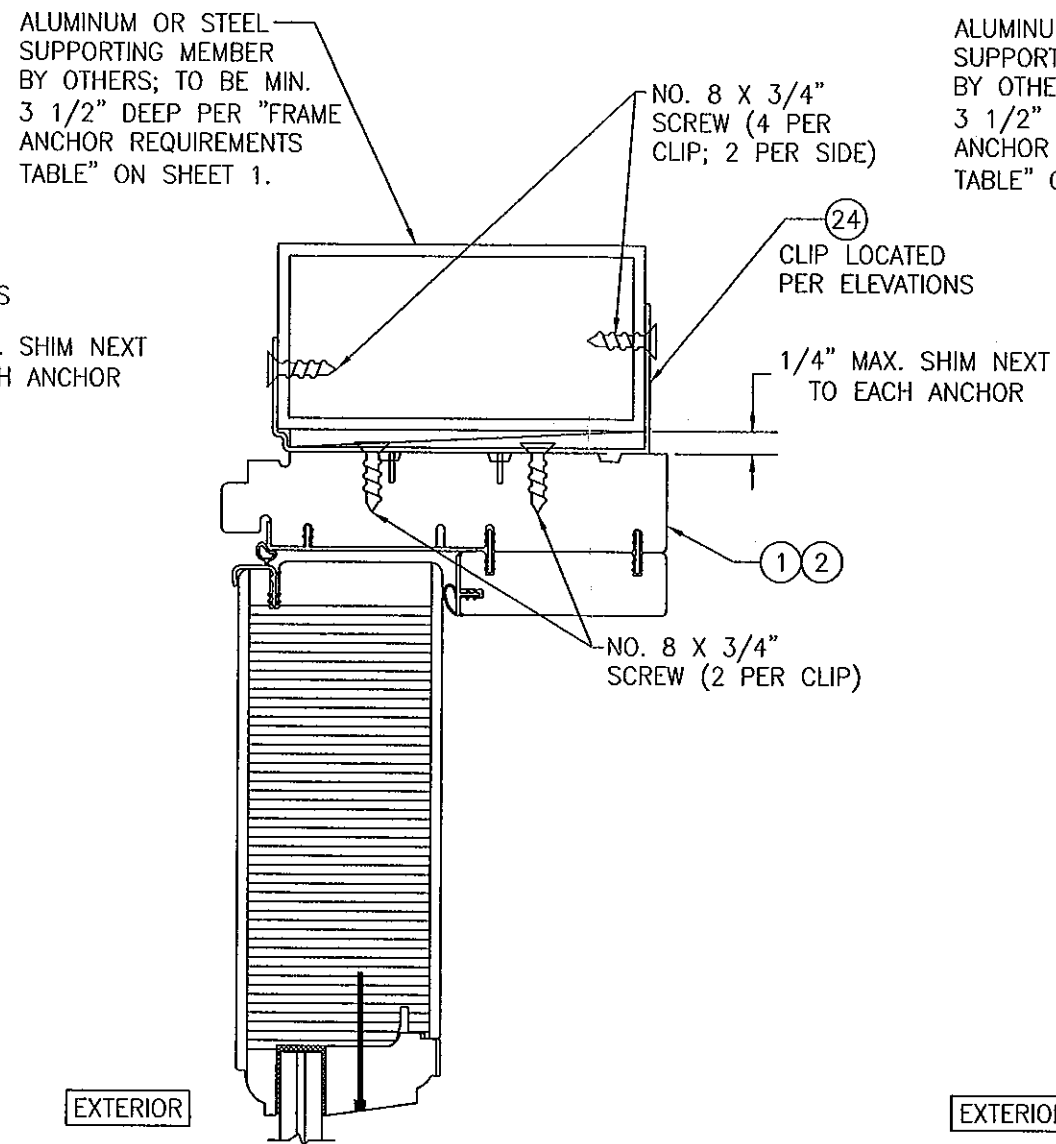


DRAWN BY: W.R.M.		CHECKED BY: W.R.M.	
PLOT: 1=2		DATE: 09/30/05	
NO.	REVISION	DESCRIPTION	DATE
1			
2			
3			
4			
DRAWING TITLE: WOOD 2 1/4" OUTSWING FRENCH DOOR STORMPLUS IZ4			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.		MANUFACTURER: MARVIN WINDOWS & DOORS	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION: <i>[Signature]</i>		FEB 29 2012	
DRAWING NO. 1452		REV. C	
SHEET NO. 4		OF 7	



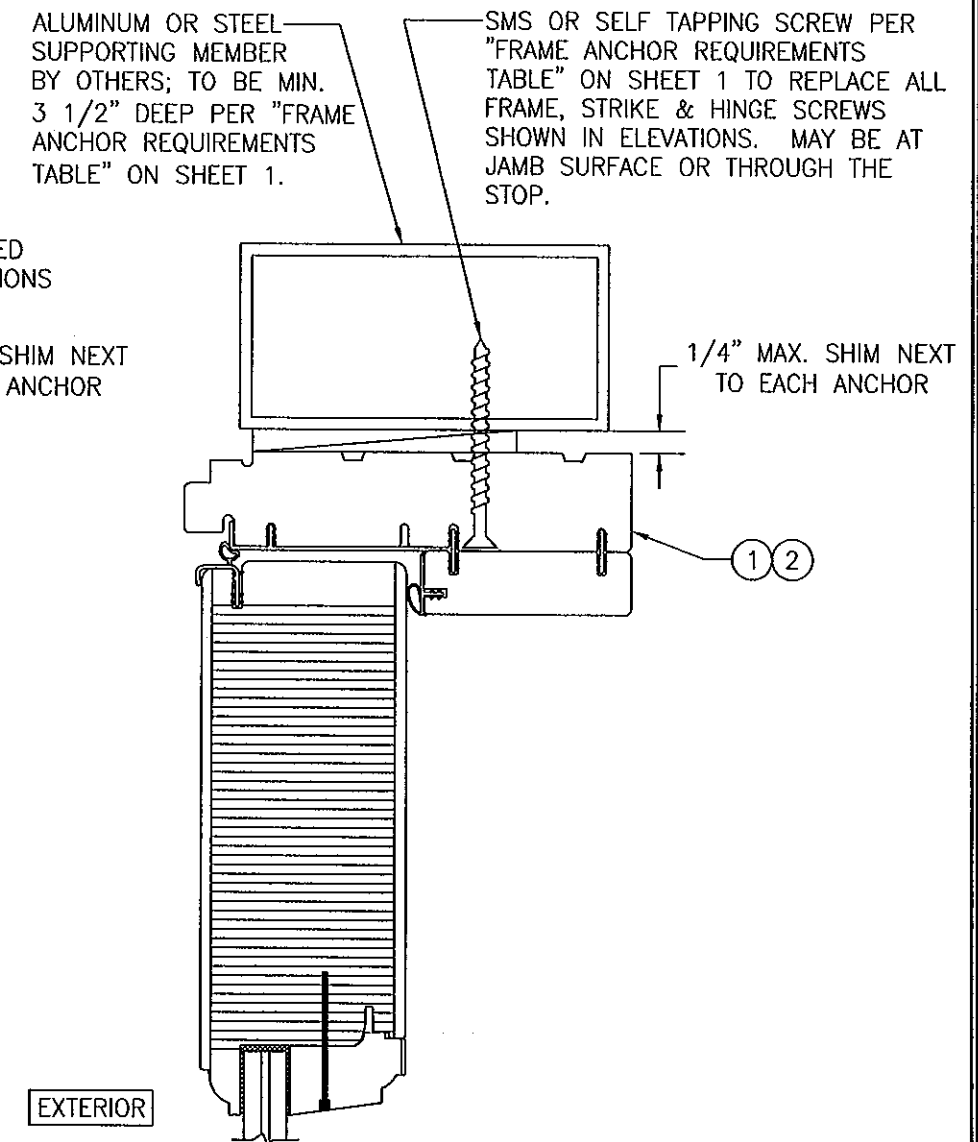
OPTIONAL CLIP MOUNT DETAIL AT HEAD AND SIDES

(HEAD SECTION SHOWN, SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



OPTIONAL CLIP MOUNT DETAIL TO ALUMINUM OR STEEL

(HEAD SECTION SHOWN, SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



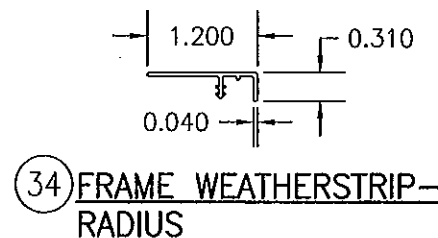
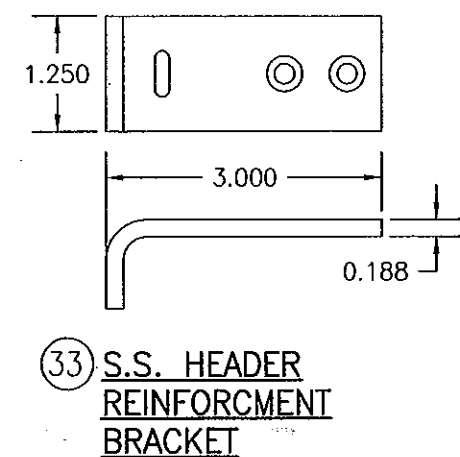
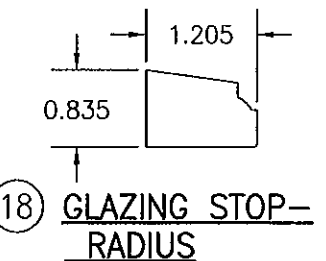
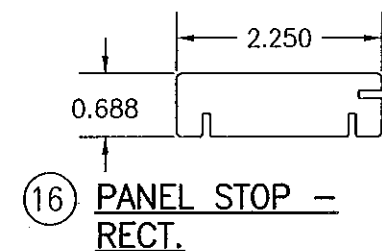
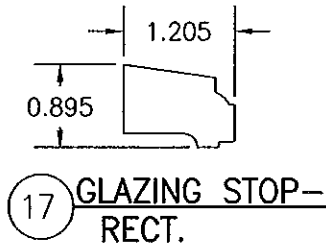
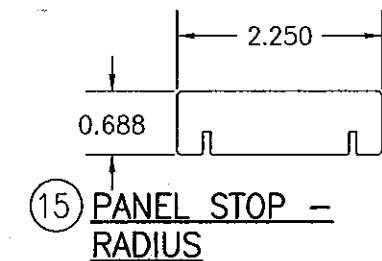
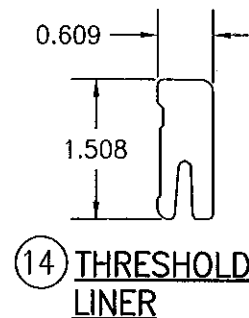
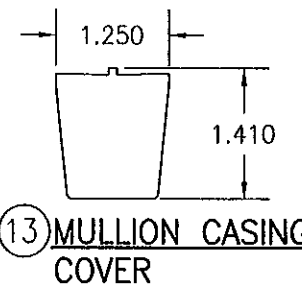
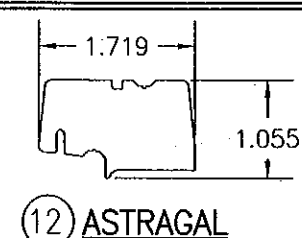
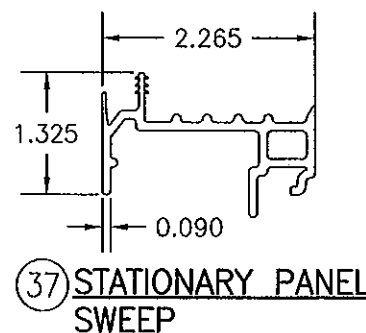
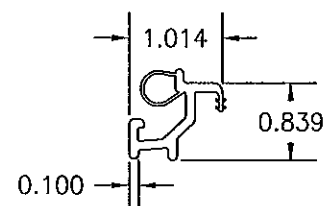
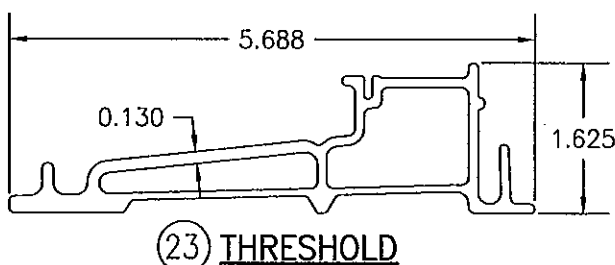
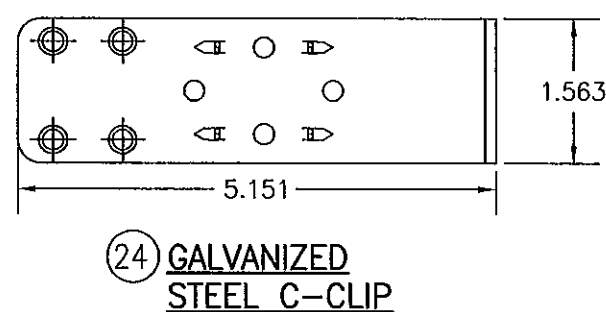
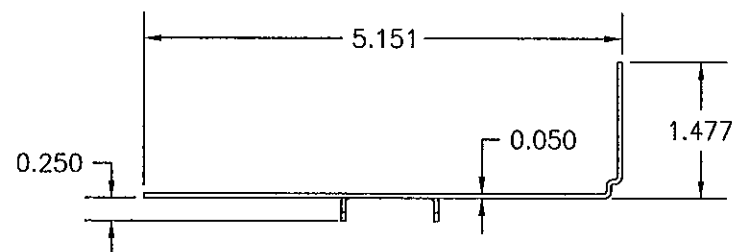
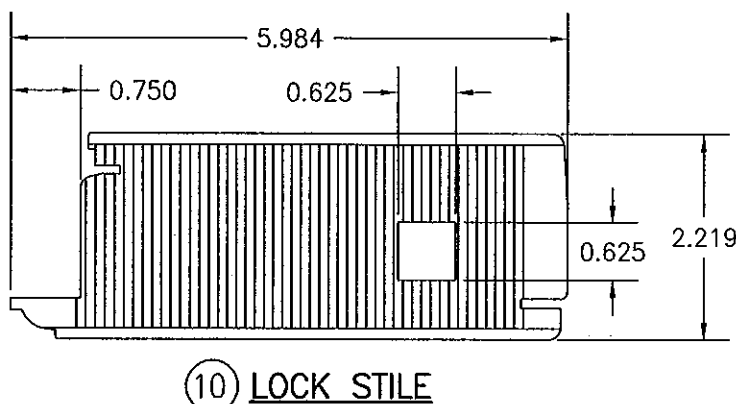
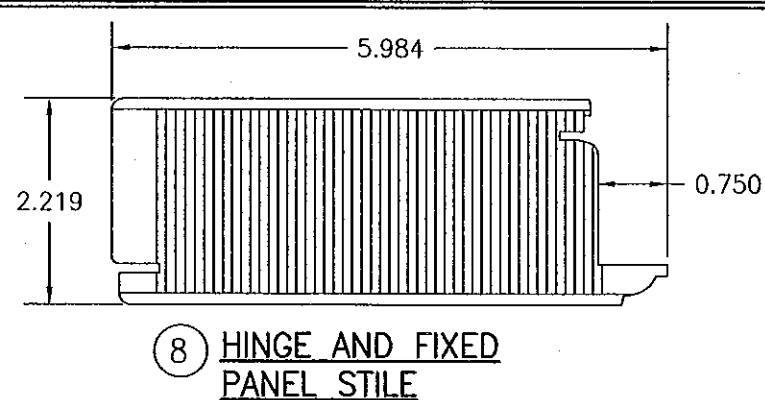
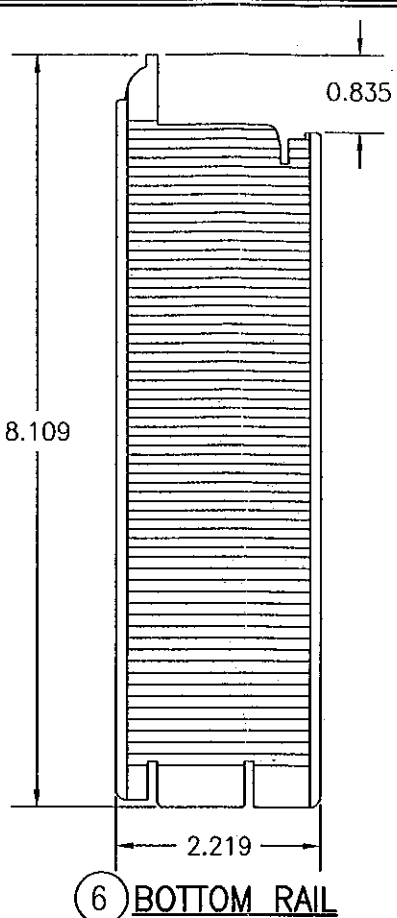
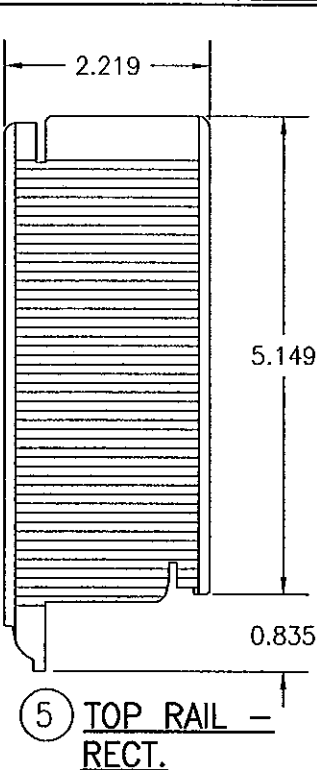
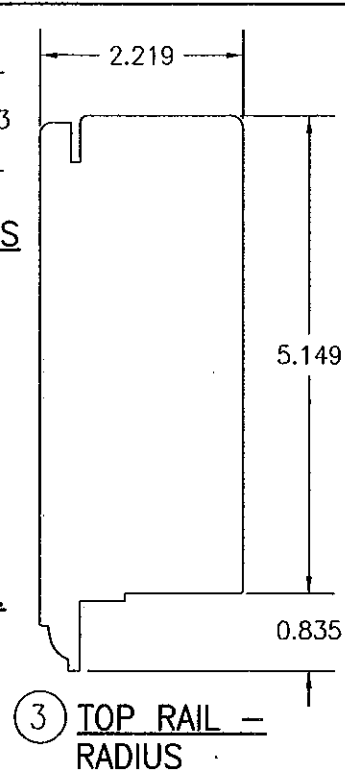
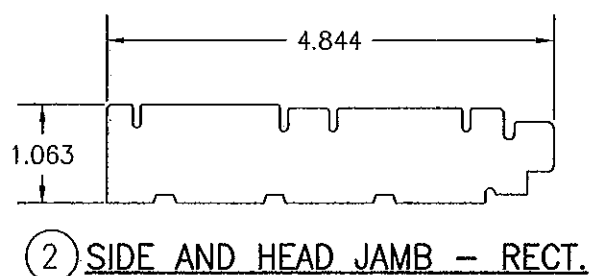
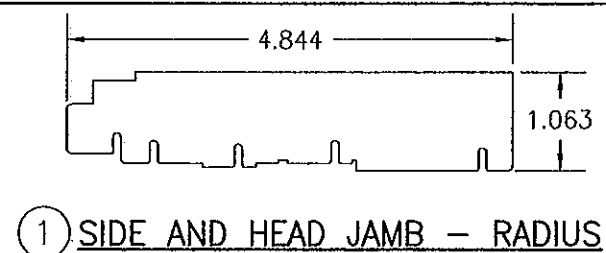
OPTIONAL DIRECT MOUNT DETAIL TO ALUMINUM OR STEEL

(HEAD SECTION SHOWN, SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

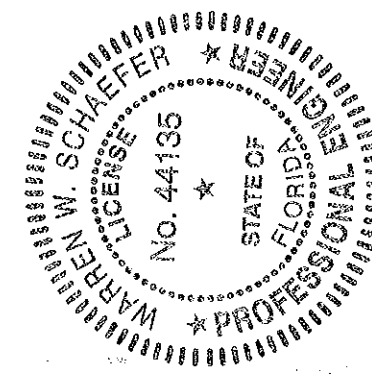
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 12-0308.33
Expiration Date 01/05/2016
By *Warren W. Schaefer*
Miami Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 09/30/05	
NO.	REVISION DESCRIPTION	DATE	BY
DRAWING TITLE: WOOD 2 1/4" OUTSWING FRENCH DOOR STORMPLUS IZ4		MANUFACTURER: MARVIN WINDOWS & DOORS	
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.		HIGHWAY 11; P.O. BOX 100	
7480 150TH COURT NORTH		WARROAD, MN 56763	
PALM BEACH GARDENS, FL 33418		800-346-5044	
PHONE: 561-744-3424			
FEB 29 2012		P.E.	
WARREN W. SCHAEFER		P.E. NO. 44135	
DRAWING NO.	REV.		
1452	C		
SHEET NO.			
5 OF 7			



PRODUCT REVISED
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Expiration Date 2/05/2016
By *[Signature]*
Miami Dade Product Control

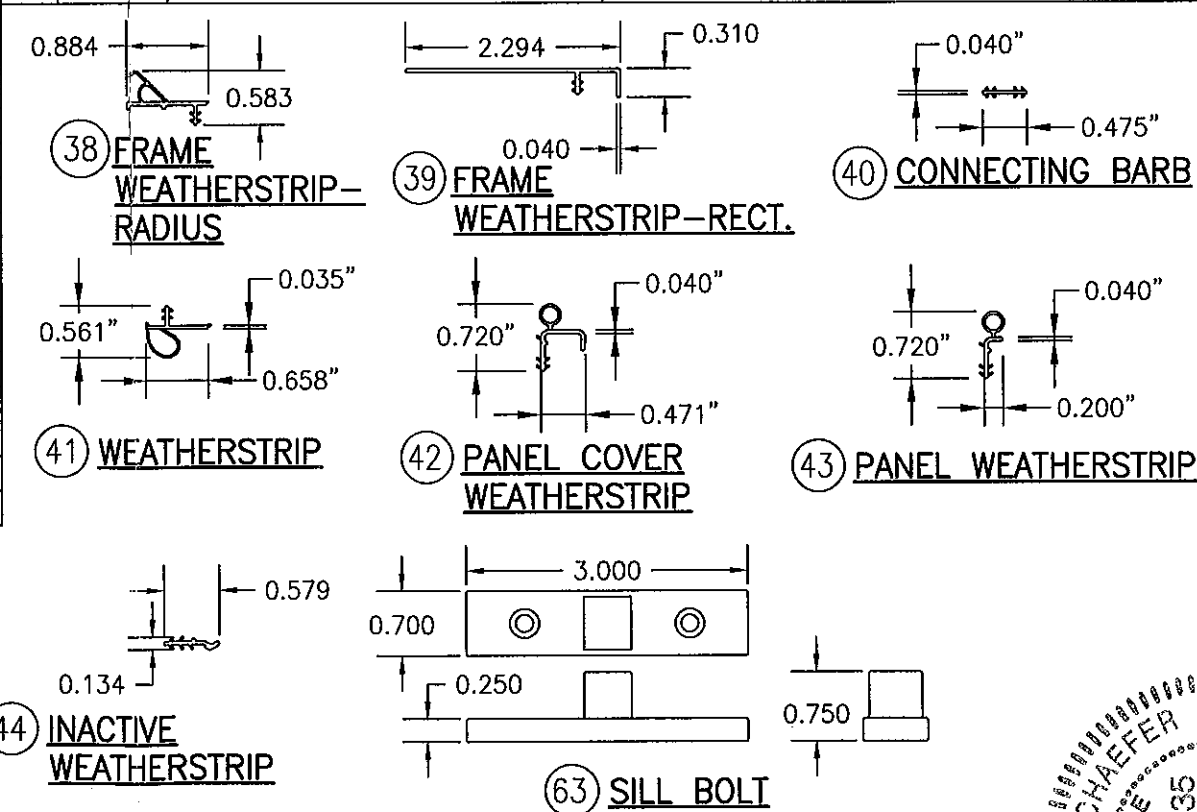


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PLOT: 1=2	DATE: 09/30/05
DATE	BY
REVISION DESCRIPTION	
NO.	
DRAWING TITLE WOOD 2 1/4" OUTSWING FRENCH DOOR STORMPLUS IZ4	MANUFACTURER MARVIN WINDOWS & DOORS P.O. BOX 100 WARROAD, MN 56763 (218) 386-4021
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	CERTIFICATION <i>[Signature]</i> FEB 29 2012 WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1452	REV. C
SHEET NO. 6	OF 7

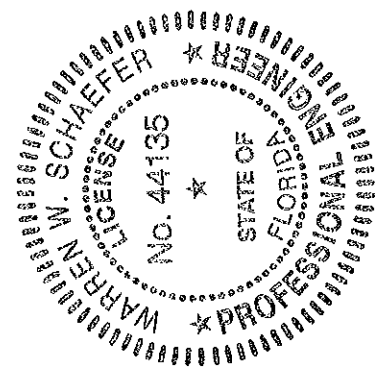
PARTS LIST			
NO.	REF. NO.	DESCRIPTION	NOTES
PARTS & EXTRUSIONS			
1	00053994	SIDE & HEAD JAMB - RADIUS	*WOOD
2	00011673	SIDE & HEAD JAMB - RECT.	*WOOD
3	00033507	TOP RAIL - RADIUS	*WOOD (FINGER JOINTED)
5	00032950	TOP RAIL - RECT.	LVL WITH PINE VENEER
6	00033711	BOTTOM RAIL	LVL WITH PINE VENEER
8	00032950	HINGE & FIXED PANEL STILE	LVL WITH PINE VENEER
10	00033069	LOCK STILE	LVL WITH PINE VENEER
12	00016785	ASTRAGAL	*WOOD
13	00034006	MULLION CASING COVER	*WOOD
14	00011114	THRESHOLD LINER	OAK
15	00054053	PANEL STOP - RADIUS	*WOOD
16	00052944	PANEL STOP - RECT.	*WOOD
17	00053530	GLAZING STOP - RECT.	*WOOD
18	00033496	GLAZING STOP - RADIUS	*WOOD
23	00011107	THRESHOLD	PAINTED ULTREX (FIBERGLASS WITH MIN. Fy = 39 KSI)
24	00036080	GALVANIZED STEEL C-CLIP (FY=50 KSI)	1 1/2" WIDE X 6 1/2" LONG X .050" THK MAY REPLACE FRAME FASTENERS PER ELEVATIONS.
25	00027022	S.S. BACKER PLATE	1 AT EA. SILL STRIKE BELOW SILL; 2.141 X 2.563 X 0.063 THK
26	00014912	GLASS REINFORCED ACETAL SILL STRIKE	1 AT EA. LOCK BAR; 1.07 X 2.82 X 0.3 THK
27	00014905	GLASS FILLED NYLON SHOOT BOLT GUIDE	1 AT EA. PANEL (TOP)
28	00004621	S.S. HEAD STRIKE PLATE	1 FOR EA. LOCK BAR (HEADER); 2.75 X 1 X 0.0705 THK
29	00026910	S.S. STILE END PLATE	1 AT EA. PANEL (TOP AND BOTTOM); 0.933 X 3.547 X 0.063 THK
30	00015312	S.S. SHOOT BOLT GUIDE REINFORCEMENT	1 AT EA. PANEL (BOTTOM)
31	00015314	GLASS FILLED NYLON SHOOT BOLT GUIDE	1 AT EA. PANEL (BOTTOM)
32	00027702	S.S. SILL STRIKE	1 AT EA. LOCK BAR; 0.250 X 2.661 X .048 THK
33	00046364	S.S. HEADER REINFORCEMENT PLATE	1 FOR EA. LOCK BAR (HEADER) 1.500 X 3.000 X .188 THK
34	00053999	FRAME WEATHERSTRIP - RADIUS	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
35	00053351	SILL WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
36	00053439	ACTIVE PANEL SWEEP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
37	00050176	STATIONARY PANEL SWEEP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
38	00054010	FRAME WEATHERSTRIP - RADIUS	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
39	00033014	FRAME WEATHERSTRIP - RECT.	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
SEALS AND SEALANTS			
40	00005685	PANEL STOP CONNECTING BARB	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
41	00005648	WEATHERSTRIP (RECT. DOOR ONLY)	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
42	00013512	WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
43	00013513	WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
44	00052828	INACTIVE WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)

NOTE: WOOD USED IN TESTING WAS WESTERN PINE WITH A SPECIFIC GRAVITY OF G = 0.43 AND A MODULUS OF ELASTICITY OF E = 1,200,000 PSI. OTHER WOOD SPECIES APPLICABLE FOR USE WITH THIS PRODUCT ARE THOSE WITH A SPECIFIC GRAVITY OF 0.43 AND MODULUS OF ELASTICITY OF 1,200,000 PSI OR GREATER. ALL WOOD IS MINIMUM GRADE 2 MILLED BY MARVIN WINDOWS & DOORS TO SELECT.

PARTS LIST			
NO.	REF. NO.	DESCRIPTION	NOTES
FASTENERS			
45A	-	NO. 12 X 1" S/STL SMS	2 PER BALL BEARING HINGE INTO JAMB
45B	-	NO. 10 X 1" S/STL SMS	3 PER ADJUSTABLE HINGE INTO JAMB
46A	-	NO. 12 X 1 1/2" S/STL SMS	4 PER BALL BEARING HINGE INTO STILE
46B	-	NO. 8 X 1 1/2" S/STL SMS	4 PER ADJUSTABLE HINGE INTO STILE
47	-	NO. 8 X 2 1/2" S/STL SMS	4" FROM CORNERS & MAX. 12" O.C.
48	-	NO. 8 X 3" S/STL SMS	1 PER SHOOT BOLT GUIDE (ACTIVE PANEL); 2 PER SILL BOLT (FIXED PANEL)
49	-	NO. 8 X 1 1/2" P.H. S/STL SMS	2.5" FROM ENDS & MAX. 9" O.C. WITH ADDITIONAL ONE AT LOCK THROW
50	-	NO. 8 X 1 1/4" S/STL P.H. SMS	2 1/4" FROM ENDS & MAX. 11" O.C.
51	-	NO. 8 X 5/8" MACHINE SCREW	2 PER THRESHOLD STRIKE
52	-	NO. 7 X 2" A/TF	3" FROM ENDS & MAX. 12" O.C.
53	-	NO. 8 X 1 1/2" A/TF	1" FROM ENDS & MAX. 12" O.C.
54	-	NO. 8 X 1" AB	2 PER HEADER REINFORCEMENT PLATE
55	-	NO. 8 X 1 1/2" P.H. S/STL SMS	1.5" FROM ENDS & MAX. 8.25" O.C.
56	-	NO. 10 X 3" PH A SMS	2 PER HEAD STRIKE PLATE
57	-	1 1/2" BRAD NAIL	2" FROM ENDS & 6"-8" O.C.
HARDWARE			
58	00037266	ACTIVE DOOR HANDLE	AS REQUIRED TO OPERATE LOCK SYSTEM
59	00037267	INACTIVE DOOR HANDLE	AS REQUIRED TO OPERATE LOCK SYSTEM
60	00013771	ACTIVE DOOR 3-POINT LOCK HARDWARE	ASHLAND
61	00013966	INACTIVE DOOR 2-POINT LOCK HARDWARE	ASHLAND
62	00034984	4.5 X 4.5 BALL BEARING HINGE	HAGER
63	00011232	SILL BOLT	ZINC DIE CAST (2 PER FIXED PANEL)
64	00073528	ADJUSTABLE HINGE	PIVOTRUE V200 BY ASHLAND HARDWARE SYSTEMS (BRASS)



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DATE	BY	REVISION	DESCRIPTION
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MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903			
CERTIFICATION FEB 29 2012 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1452		REV. C	
SHEET NO. 7 OF 7			